City of Sunnyvale

Ten Year Project Costs

by Project Category and Type

Project Number	Project Name	Prior Years Actual	Revised Budget 2004-05	Plan 2005-06	Plan 2006-07	Plan 2007-08	Plan 2008-09	Plan 2009-10	Plan 2010-11	Plan 2011-12	Plan 2012-13	Plan 2013-14	Plan 2014-15	Ten Year Plan Total	**Project Grand Total**
Category:	**Infrastructure**														
Type:	**Water**														
806302	Water Pipes, Manholes, and Laterals Replacement														
		0	44,709	20,000	20,400	20,808	21,224	21,649	22,082	22,523	22,974	23,433	23,902	218,995	263,704
806452	Water Pump, Motor and Engine Replacement														
		0	29,284	28,500	29,070	29,651	30,244	30,849	31,466	32,096	32,738	33,392	34,060	312,066	341,350
815202	Water/Sewer Supervisory Control System														
		0	1,930,838	0	0	0	0	0	0	0	0	0	0	0	1,930,838
822851	Water Line Replacement - Gresham Avenue														
		0	154,914	0	0	0	0	0	0	0	0	0	0	0	154,914
822861	Water Line Replacement - Cypress Avenue														
		0	130,723	0	0	0	0	0	0	0	0	0	0	0	130,723
823741	Baylands Park Water Main Replacement														
		0	48,737	0	0	0	0	0	0	0	0	0	0	0	48,737
824310	Refurbishment of Water tanks @ Wright Avenue														
		14,127	360,873	1,540,000	0	0	0	1,190,675	0	0	0	0	0	2,730,675	3,105,675
824800	Roof Replacement of Water Plants														
		0	15,000	0	0	0	0	0	0	0	0	102,860	0	102,860	117,860
825030	Water Fluoridation														
		0	30,000	0	0	0	0	0	0	0	0	0	0	0	30,000
825220	Central Water Plant Building Reconstruction														
		0	0	0	255,000	1,560,600	0	0	0	0	0	0	0	1,815,600	1,815,600
825230	Cleaning of Water Tanks														
		0	0	0	0	0	0	0	28,706	0	0	0	7,171	35,877	35,877

Note: Projects with $0 Grand Total have budgets in the second ten years of the Twenty Year Plan.

City of Sunnyvale

Ten Year Project Costs

by Project Category and Type

Project Number	Project Name	Prior Years Actual	Revised Budget 2004-05	Plan 2005-06	Plan 2006-07	Plan 2007-08	Plan 2008-09	Plan 2009-10	Plan 2010-11	Plan 2011-12	Plan 2012-13	Plan 2013-14	Plan 2014-15	Ten Year Plan Total	**Project Grand Total**
825240	Equipment Replacement at Five (5) Hetch-Hetchy Connections														
		0	0	111,000	291,720	287,150	0	0	0	0	0	0	0	689,870	689,870
825250	Mary/Carson Water Plant Mechanical Reconstructions														
		0	0	0	0	0	0	156,953	883,265	0	0	0	0	1,040,218	1,040,218
825260	Moat Renovation of Mary/Carson and Wolfe/Evelyn Water Plants														
		0	0	0	0	0	0	0	0	0	0	58,583	298,773	357,356	357,356
825280	Earthquake Mitigation of Water Tanks														
		0	0	150,000	1,836,000	0	0	0	0	0	0	0	0	1,986,000	1,986,000
825300	Pressure Reducing Valve Replacement & Relocation for SCADA														
		0	0	60,000	61,200	62,424	63,672	64,946	123,657	126,130	128,653	131,226	133,850	955,758	955,758
825310	Shrouds at Well Sites														
		0	0	50,000	0	0	0	0	0	0	0	0	0	50,000	50,000
825390	Wolfe/Evelyn Plant Mechanical Reconstruction														
		0	0	0	0	0	153,875	920,067	0	0	0	0	0	1,073,942	1,073,942
825410	Hamilton Plant Emergency Generator & Mechanical Reconst														
		0	0	190,000	591,600	0	0	0	0	0	0	0	0	781,600	781,600
825420	Water Pressure Zone Three Expansion														
		0	0	106,000	0	0	0	0	0	0	0	0	0	106,000	106,000
825430	Raynor Well Connection														
		0	0	0	0	0	0	0	0	0	0	82,016	430,233	512,249	512,249
825440	Recycled Water Booster Pump @ Golf Course														
		0	0	175,000	0	0	0	0	0	0	0	0	0	175,000	175,000
825450	City-Wide Water Line Replacement														
		0	0	250,000	357,000	468,180	583,664	595,338	607,244	619,389	631,777	644,413	657,301	5,414,306	5,414,306
825460	Interior Coating of Water Tanks														
		0	0	0	581,400	0	0	0	0	495,511	505,422	515,530	0	2,097,863	2,097,863

Note: Projects with $0 Grand Total have budgets in the second ten years of the Twenty Year Plan.

City of Sunnyvale

Ten Year Project Costs

by Project Category and Type

Project Number	Project Name	Prior Years Actual	Revised Budget 2004-05	Plan 2005-06	Plan 2006-07	Plan 2007-08	Plan 2008-09	Plan 2009-10	Plan 2010-11	Plan 2011-12	Plan 2012-13	Plan 2013-14	Plan 2014-15	Ten Year Plan Total	**Project Grand Total**
825470	Well Study														
		0	0	0	0	0	0	0	0	0	0	0	47,804	47,804	47,804
825480	Inspection and Renovation of Well Systems														
		0	0	40,000	163,200	0	0	0	0	0	0	0	0	203,200	203,200
825490	Exterior Painting of Water Tanks														
		0	0	25,000	0	0	265,302	21,649	0	0	0	234,332	0	546,283	546,283
825500	Wright Ave Water Plant Mechanical Reconstruction														
		0	0	50,000	0	0	0	957,952	0	0	0	0	0	1,007,952	1,007,952
Total		14,127	2,745,078	2,795,500	4,186,590	2,428,813	1,117,981	3,960,078	1,696,420	1,295,649	1,321,564	1,825,785	1,633,094	22,261,474	25,020,679

Note: Projects with $0 Grand Total have budgets in the second ten years of the Twenty Year Plan.

Project Information Sheet

Project: 806302 Water Pipes, Manholes, and Laterals Replacement

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	1999-00	Phase:	Ongoing	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

This project is intended to provide funding for miscellaneous small water projects that may arise unexpectedly. Generally, funding is used for emergency repairs occurring outside normal operations. Needs almost exceeded funding in 806301 last year. Aging water pipes are anticipated to have more frequent breakage. Budget should be maintained at least at current level for the next 5-10 years.

Service Level

No service level effect

Issues

See project 806301 for prior year expenditure history.

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	44,709	20,000	20,400	20,808	21,224	21,649	22,082	22,523	22,974	23,433	23,902	218,995	263,704
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		44,709	20,000	20,400	20,808	21,224	21,649	22,082	22,523	22,974	23,433	23,902	218,995	
Total	0	44,709	20,000	20,400	20,808	21,224	21,649	22,082	22,523	22,974	23,433	23,902	218,995	263,704
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 806452 Water Pump, Motor and Engine Replacement

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	1998-99	Phase:	Ongoing	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

This project provides for the purchase and installation of pumps and motors, as needed, to replace old or obsolete equipment. Generally, funding is used for emergency repairs occurring outside normal operations. Due to the aging of the system, it is expected that funds will continue to be needed and that the need will be expanding.

Service Level

This project ensures provision of continuous water supply and pressure to the potable water and fire systems.

Issues

See project 806450 and 806451 for prior expenditure history.

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	29,284	28,500	29,070	29,651	30,244	30,849	31,466	32,096	32,738	33,392	34,060	312,066	341,350
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		29,284	28,500	29,070	29,651	30,244	30,849	31,466	32,096	32,738	33,392	34,060	312,066	
Total	0	29,284	28,500	29,070	29,651	30,244	30,849	31,466	32,096	32,738	33,392	34,060	312,066	341,350
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 815202 Water/Sewer Supervisory Control System

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	1999-00	Phase:	Design	Project Manager:	Hira Raina
Planned Completion Year:	2004-05	% Complete:	25	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

This project involves replacing the existing Supervisory Control and Data Acquisition (SCADA) system hardware and software. The existing SCADA system is old and obsolete. This system needs to be replaced by a computer system which is centrally controlled. The budget is for the replacement of remote terminal units, telephone lines, and the data concentrator. The new system will provide additional channels which are needed to measure pressures, water hammer and peak demands.

The design is 100% complete. A contract has been awarded, and construction has started. Add alternates included in the original bid were not awarded and will be re-bid at later date. A recent Vulnerability Assessment recognized the need for immediate remote-control of valves in the event of an attack on the system.

Staff estimate that SCADA's life expectancy is around 15 years. After that time, the system will need to be upgraded. Any repairs that are needed in the meantime can be covered by the operating budget.

Service Level

No service level effect

Issues

See project 815201 for prior year expenditure history. The City has applied for Proposition 50 Funding for this project.

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	1,930,838	0	0	0	0	0	0	0	0	0	0	0	1,930,838
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		1,930,838	0	0	0	0	0	0	0	0	0	0	0	
Total	0	1,930,838	0	0	0	0	0	0	0	0	0	0	0	1,930,838
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 822851 Water Line Replacement - Gresham Avenue

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2001-02	Phase:	Completed	Project Manager:	Hira Raina
Planned Completion Year:	2003-04	% Complete:	100	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	Murphy West	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

The existing 4-inch water pipe in Gresham Avenue between Duane Avenue and Arbor Avenue is corroded and lacks sufficient capacity for current fire flow requirements. This project will replace approximately 800 feet of pipe with new 6-inch corrosion resistant pipe. Construction is completed.

Service Level

No service level effect

Issues

none

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	154,914	0	0	0	0	0	0	0	0	0	0	0	154,914
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Total	0	154,914	0	0	0	0	0	0	0	0	0	0	0	154,914
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 822861 Water Line Replacement - Cypress Avenue

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2001-02	Phase:	Completed	Project Manager:	Hira Raina
Planned Completion Year:	2004-05	% Complete:	100	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	Murphy West	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

The existing 6-inch water pipe in Cypress Avenue between Fair Oaks Avenue and Britton Avenue is corroded and is subject to breaks and leakage. This project replaced approximately 700 feet of pipe with new 6-inch corrosion resistant pipe. The project is complete.

Service Level

No service level effect

Issues

none

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	130,723	0	0	0	0	0	0	0	0	0	0	0	130,723
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Total	0	130,723	0	0	0	0	0	0	0	0	0	0	0	130,723
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 823741 Baylands Park Water Main Replacement

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2002-03	Phase:	Completed	Project Manager:	Hira Raina
Planned Completion Year:	2004-05	% Complete:	100	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

Frequent repairs to the existing water main in Baylands Park had been necessary due to corrosion caused by acidic soils. This project replaced 2,500 linear feet of existing 8" ductile iron pipe with 8" high-density polyethylene (HDPE) pipe. Stainless steel or epoxy coated service connections were used. The project has been completed.

Service Level

No service level effect

Issues

none

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	48,737	0	0	0	0	0	0	0	0	0	0	0	48,737
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Total	0	48,737	0	0	0	0	0	0	0	0	0	0	0	48,737
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 824310 Refurbishment of Water tanks @ Wright Avenue

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2003-04	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	2009-10	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A.3 & 3.1A.3g	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

The City follows a routine tank maintenance schedule in order to assure water tanks are properly maintained. Staff performs a ten-year maintenance review to determine the condition of the tanks and to make recommendations on coating repair, re-coating, cathodic protection and/or structural modifications. The last ten year assessment of water tanks concluded that all tanks are in good condition with the exception of the Wright Avenue tanks.

This project is to refurbish two Wright Ave. tanks, inside and out, in accordance with a complete structural and coating evaluation done in 2004. Both tanks require eventual removal of interior coatings by sand blasting and recoating with current standard materials. This project allows for an initial project to repair some structural damage and coatings for Tank #2. A second project to paint Tank #1 is budgeted in FY 2009/2010. Also included in the project is the replacement of the antiquated radial altitude valves that control tank level with a more conventional pressure valve assembly.

Refurbishing the tanks is much more cost-efficient than replacing them, since the cost of replacing one tank is in the millions of dollars. Also, replacing one or more of the tanks would burden the water distribution system for a longer period of time, since the water storage would not be available for drinking or fire protection. Proper coating with the normal schedule of periodic tank maintenance should keep the tanks in useable condition for up to 40 years.

Service Level

This will improve service levels by ensuring water quality and the integrity of the water storage and conveyance system.

Issues

None

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	14,127	360,873	1,540,000	0	0	0	1,190,675	0	0	0	0	0	2,730,675	3,105,675
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		360,873	1,540,000	0	0	0	1,190,675	0	0	0	0	0	2,730,675	
Total	14,127	360,873	1,540,000	0	0	0	1,190,675	0	0	0	0	0	2,730,675	3,105,675
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 824800 Roof Replacement of Water Plants

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2004-05	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1C	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

This project provides funding in 2004/05 to repair the roof support structure at the Mary/Carson water plant. In 2013/14, the funds will be used to replace the roofs of all five water plants (Mary/Carson, Wolfe/Evelyn, Central, Wright, and Hamilton). The tar and gravel roofs, which by then will have reached the end of their useful life, will be replaced with a stronger and longer lasting roofing product. Gutters will also be installed. The project will preserve conditions at all water plants.

The new roofs should not need any maintenance for at least 10-15 years, and replacement should not be necessary for 20-25 years.

Service Level

No effect.

Issues

none

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	15,000	0	0	0	0	0	0	0	0	102,860	0	102,860	117,860
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		15,000	0	0	0	0	0	0	0	0	102,860	0	102,860	
Total	0	15,000	0	0	0	0	0	0	0	0	102,860	0	102,860	117,860
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825030 Water Fluoridation

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2004-05	Phase:	Planning	Project Manager:	Jim Craig
Planned Completion Year:	2010-11	% Complete:	n/a	Project Coordinator:	none
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A, 3.1D	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

The San Francisco Public Utilities Commission (SFPUC) is scheduled to start system-wide fluoridation in May of 2005. Santa Clara Valley Water District (SCVWD), our second water provider, has no plans to fluoridate its water; and City well water is not fluoridated. This will leave parts of the City receiving fluoridated water (of varying concentrations) and others receiving non-fluoridated water. Council has requested that a study be conducted to research the impact of SFPUC fluoridation on Sunnyvale. This project will provide funding to contract with a consultant to do the study and provide a report determining legal and technical requirements and the cost to fluoridate all City and SCVWD water, as well ad issues and costs associated with not fluoridating City and SCVWD water.

Service Level

No service level effect.

Issues

The City is not obligated to provide fluoridated water until the federal or state government releases the funding allocated to this purpose.

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	30,000	0	0	0	0	0	0	0	0	0	0	0	30,000
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		30,000	0	0	0	0	0	0	0	0	0	0	0	
Total	0	30,000	0	0	0	0	0	0	0	0	0	0	0	30,000
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825220 Central Water Plant Building Reconstruction

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	2007-08	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1E.3	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

The Water Pollution Control Plant is a critical element of the City's water supply system. Existing buildings have deteriorated, and equipment is worn and needs replacement.

In FY 06/07, this project will provide funding to inspect and evaluate the site for termites and wood rot and to evaluate the existing equipment for replacement needs and construction design. In FY 07/08, the project will provide funding to install a new propane generator, magnetic flow meter, and underground piping. Since the pump house is in better condition than the attached storage facility, it might be possible to refurbish the main building and demolish and replace the storage facility only, which would be less costly. This would also be done in FY 07/08. Part of the initial design budget will be used for inspection of the facilities to determine infrastructure integrity and to determine an action plan. Even though the equipment is currently operational, it is over 40 years old and will require replacement soon. If it is determined that its useful life can be extended through maintenance, the budget will be adjusted accordingly. However, it is anticipated that the evaluation will recommend rebuilding/replacing of pumps and motors.

Service Level

No service level effect.

Issues

None.

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	0	255,000	1,560,600	0	0	0	0	0	0	0	1,815,600	1,815,600
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	0	255,000	1,560,600	0	0	0	0	0	0	0	1,815,600	
Total	0	0	0	255,000	1,560,600	0	0	0	0	0	0	0	1,815,600	1,815,600
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825230 Cleaning of Water Tanks

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1E.3	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

This project involves cleaning the inside of all ten City-owned water tanks every five years and effecting minor repairs, as needed. Five small tanks at Hamilton and Central and one large tank at Wright will be re-coated during FY 05/06 and cleaned during FY 10/11. A second large tank at Wright will be recoated during FY 09/10 and cleaned during FY 14/15. Since the other tanks will be re-coated in later years, they will be placed on the cleaning schedule at that time.

Water tanks are critical to the storage and delivery of safe drinking water. Regularly scheduled cleaning is required by the Department of Health Services to maintain water quality standards. A planned and scheduled program is better than a reactive shutdown of a tank once a problem is identified.

Service Level

The project will preserve the City's investment in its infrastructure and will help maintain water availability and quality.

Issues

None.

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	0	0	0	0	0	28,706	0	0	0	7,171	35,877	35,877
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	0	0	0	0	0	28,706	0	0	0	7,171	35,877	
Total	0	0	0	0	0	0	0	28,706	0	0	0	7,171	35,877	35,877
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825240 Equipment Replacement at Five (5) Hetch-Hetchy Connections

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	2007-08	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1E.3	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

This project provides for the replacement of reducing valves, gate valves, limitorque valves and vaults and to install magnetic meters at five connections to the Hetch-Hetchy water supply pipeline. Most valves to be replaced are 8" to 16" diameter. The equipment is being replaced because of age (40 to 50 years old) and to provide upgrades allowing each facility to be connected to the City's Supervisory Control and Data Acquisition (SCADA) system.

The connections are located at Lawrence, Fair Oaks, Borregas, Lockheed, Palomar, and Mary (/Hetch-Hetchy). There are a total of 9 pressure-reducing valves, over 30 gate valves, 6 limitorque valves with control centers, 13 vaults, and 6 magnetic meters to be replaced or installed. These items will provide better control of the water system.

Service Level

These upgrades allow for the preservation and integrity of the vital connections of the City's water supply to the Hetch-Hetchy water supply system.

Issues

Staff will seek Proposition 50 funding for the project.

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	111,000	291,720	287,150	0	0	0	0	0	0	0	689,870	689,870
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	111,000	291,720	287,150	0	0	0	0	0	0	0	689,870	
Total	0	0	111,000	291,720	287,150	0	0	0	0	0	0	0	689,870	689,870
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825250 Mary/Carson Water Plant Mechanical Reconstructions

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	2008-09	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1E.3	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

The existing pumping facilities and emergency pumping engine at the Mary/Carson water plant were built and installed in 1966 and are now old and inefficient. Equipment replacements and upgrades are necessary to maintain system integrity, conform to new Supervisory Control and Data Acquisition (SCADA) specifications, and improve the impact of emergency engine operation on local air quality.

Needing replacement are 5 regulating valves, 3 electric motors (with a booster pump and a motor control center for each motor), and a lighting electrical sub-panel. One magnetic flow meter and one limitorque valve will also be installed. These items will provide better control of the water system. The propane generator that will replace the Waukesha motor will provide electricity during power failure to the whole station and not to just one pump as the existing system does. This project is similar to the Wright Ave Water Plant Mechanical Reconstruction project.

Service Level

The project will upgrade the Mary/Carson water plant's mechanical and electrical systems to better serve the City's needs.

Issues

This project may qualify for an Environmental Protection Agency grant. Staff will explore this possibility.

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	0	0	0	0	156,953	883,265	0	0	0	0	1,040,218	1,040,218
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	0	0	0	0	156,953	883,265	0	0	0	0	1,040,218	
Total	0	0	0	0	0	0	156,953	883,265	0	0	0	0	1,040,218	1,040,218
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825260 Moat Renovation of Mary/Carson and Wolfe/Evelyn Water Plants

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	2006-07	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Board/Commission			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1E.3	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

The Mary/Carson and Wolfe/Evelyn water plants are equipped with containment areas (moats) that surround the perimeter of the plant. The moats are designed to protect the surrounding neighborhoods from flooding in the event of a tank failure or failure of tank water supply to shut off at the appropriate level. The moats at these two plants have eroded or have slumped over time and need to be graded to re-establish suitable containment volume and structural integrity.

This project involves repairing moats (overflow containment areas) by grading and reshaping, developing effective erosion control on the slopes, and installing one sump pump at the Wolfe/Evelyn plant.

Service Level

No service level effect.

Issues

None.

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	0	0	0	0	0	0	0	0	58,583	298,773	357,356	357,356
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	0	0	0	0	0	0	0	0	58,583	298,773	357,356	
Total	0	0	0	0	0	0	0	0	0	0	58,583	298,773	357,356	357,356
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825280 Earthquake Mitigation of Water Tanks

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	2007-08	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1C	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

A seismic vulnerability assessment was performed on the City's nine water tanks. As a result, it was determined that the five smaller tanks require seismic retrofitting. The affected tanks are Central #2 (built in 1954); Hamilton #2 (1957); Central #1 (1949); Hamilton #1 (1956); and Hamilton #3 (1959).

This project improve foundation connections by anchoring tanks to the ground and will also improve water inlet, outlet, and overflow connections by adding flexible couplets to make them more reliable in seismic events. The impact of tank failure during seismic activity would be amplified by likely additional needs placed on the water system to protect public health and to provide fire suppression.

Staff will apply for a Federal Emergency Management Agency (FEMA) grant that would provide 75% of the funding necessary for this project.

Service Level

The project will preserve the City's investment in its infrastructure and prevent possible breakdown of the water tanks in the event of a large earthquake. It will also preserve water availability for fire fighting under emergency conditions.

Issues

75% of the project cost may qualify for FEMA grants. Staff will apply for grant funding.

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	150,000	1,836,000	0	0	0	0	0	0	0	0	1,986,000	1,986,000
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	150,000	1,836,000	0	0	0	0	0	0	0	0	1,986,000	
Total	0	0	150,000	1,836,000	0	0	0	0	0	0	0	0	1,986,000	1,986,000
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825300 Pressure Reducing Valve Replacement & Relocation for SCADA

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1E.3	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

This project will replace 60 existing pressure-reducing valves (PRVs) with new ones on a City-wide basis. Work will be prioritized and done by City staff at a rate of 1 valve/yr, starting in FY 05/06, ramping up to 2 valves/yr by FY 10/11, and connecting them to the Supervisory Control and Data Acquisition (SCADA) system. This will allow City staff to remotely monitor and control water system pressures, turn valves on and off quickly in emergencies, and better manage and maintain water quality, in general.

PRVs are an integral part of the water distribution systemand provide balanced water pressure throughout the City. The PRVs are 40 to 50 years old, and preventive maintenance is exceeding replacement costs. Properly functioning PRVs will help reduce the number of main breaks caused by high pressure and will also provide additional fire protection.

Service Level

No service level effect.

Issues

Staff has applied for Prop 50 funding.

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	60,000	61,200	62,424	63,672	64,946	123,657	126,130	128,653	131,226	133,850	955,758	955,758
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	60,000	61,200	62,424	63,672	64,946	123,657	126,130	128,653	131,226	133,850	955,758	
Total	0	0	60,000	61,200	62,424	63,672	64,946	123,657	126,130	128,653	131,226	133,850	955,758	955,758
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825310 Shrouds at Well Sites

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	2005-06	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	Parks and Recreation

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1E.3	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

Following the events of September 11, 2001, the United States Environmental Protection Agency (USEPA) received a supplemental appropriation from Congress to improve the safety and security of the nation's water supply. A grant program was established to assist local water utilities in responding to the threat of terrorist attacks and to improve the security of water utility infrastructure and operations. Priority activities included: 1. Developing a Water System Vulnerability Assessment (VA), which was given the highest priority under the grant program, since it is the first step in understanding how and where a water utility can be damaged by a terrorist attack; 2. Developing an Emergency Operations Plan to deal with the threats identified in the Vulnerability Assessment; and 3. Planning and designing projects to enhance the water utility's system security. With grant monies, the City of Sunnyvale contracted with a security and vulnerability assessment team to provide a vulnerability assessment. The assessment recommended the installation of cages around some vulnerable water system components as one of the least costly, most effective ways to protect them.

This project provides for the installation of a security cage (shroud) around all air relief valves at nine well sites. Staff has determined that, by doing the installation in-house, the budget for the project will not exceed $50,000. Once the shrouds have been installed around the air relief valves, installation of shrouds around tank ladders at two well sites can wait for further evaluation.

Service Level

No service level effect.

Issues

Prop 50 grant funding applied for with SCADA system improvements.

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	50,000	0	0	0	0	0	0	0	0	0	50,000	50,000
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	50,000	0	0	0	0	0	0	0	0	0	50,000	
Total	0	0	50,000	0	0	0	0	0	0	0	0	0	50,000	50,000
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825390 Wolfe/Evelyn Plant Mechanical Reconstruction

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	2007-08	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1E.3	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

This project involves replacing booster pumps and regulating valves, motors, motor control center, and booster room underground piping at the Wolfe/Evelyn water plant. It will also replace an existing Waukesha motor and pump with a propane generator and transfer switch and install a magnetic flow meter.

The Wolfe/Evelyn plant was built in 1959, and all the current equipment is original. Part replacement is currently very costly due to obsolescence of pump. The electrical panels are sub-standard and in need of replacing.

Service Level

The project will upgrade the plant's mechanical systems to better serve the City's needs.

Issues

none

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	0	0	0	153,875	920,067	0	0	0	0	0	1,073,942	1,073,942
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	0	0	0	153,875	920,067	0	0	0	0	0	1,073,942	
Total	0	0	0	0	0	153,875	920,067	0	0	0	0	0	1,073,942	1,073,942
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825410 Hamilton Plant Emergency Generator & Mechanical Reconst

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	2005-06	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1E.3	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

This project has two parts: the first part is installing the already-purchased generator, including concrete pad base, with electrical connection and testing of the system. This needs to be done as soon as possible to avoid potential damage or deterioration of the generator. The second part is the mechanical reconstruction of 2 submersible well pumps and their motors, 4 motor control centers, 2 booster pumps and their motors, and the replacement of some piping. A new magnetic flow meter and a transfer switch for the emergency generator will also be provided.

The first part will cost approximately $80,000 and will include the structural engineering of the pad and underlying ground grid conduits from the pad to the building; permits from Bay Area Air Quality Management District and our Building Dept.; concrete construction; and system testing . The second part will cost approximately $690,000, and will include engineering design and construction.

Service Level

The project will preserve the City's investment in this piece of infrastructure and ensure that it will be adequate for present and future needs.

Issues

none

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	190,000	591,600	0	0	0	0	0	0	0	0	781,600	781,600
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	190,000	591,600	0	0	0	0	0	0	0	0	781,600	
Total	0	0	190,000	591,600	0	0	0	0	0	0	0	0	781,600	781,600
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825420 Water Pressure Zone Three Expansion

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	2005-06	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1E.3	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

The City's water system is separated into three pressure zones. Currently, pressures in the Hollenbeck/Homestead area, which are contained within pressure zone 3, are lower than desired.

This project will install one pressure relief valve (SCADA-ready) at one of Zone 3 valve locations, improving pressures in the target area and, as a consequence, also improving fire services. Additionally, the project will upgrade the system in order to enable it to be connected through the new SCADA system.

Service Level

No service level effect.

Issues

No issues.

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	106,000	0	0	0	0	0	0	0	0	0	106,000	106,000
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	106,000	0	0	0	0	0	0	0	0	0	106,000	
Total	0	0	106,000	0	0	0	0	0	0	0	0	0	106,000	106,000
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825430 Raynor Well Connection

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	2006-07	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	Parks and Recreation

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1E.3	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

This project will connect the Raynor well to the Wolfe transmission main, thus allowing staff to provide water to the Wolfe/Homestead area if the water supply from Hetch-Hetchy or Santa Clara Valley Water District (or both) is interrupted. It will involve installation of 1820' of 10"-diameter ductile iron pipe, a new pressure-reducing valve, and isolation valves. The connection will improve stability of the water system. Staff has applied for Prop 50 funding which provides 50% matching of funds.

Service Level

No service level effect.

Issues

Applied for Prop 50 Grant.

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	0	0	0	0	0	0	0	0	82,016	430,233	512,249	512,249
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	0	0	0	0	0	0	0	0	82,016	430,233	512,249	
Total	0	0	0	0	0	0	0	0	0	0	82,016	430,233	512,249	512,249
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825440 Recycled Water Booster Pump @ Golf Course

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	2005-06	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1E.3	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

This project will install a booster pump and electrical service at Sunnyvale Golf Course.

Until the recycled water distribution system is looped, there will always be fluctuation in the system pressure. The golf course is one of the largest users of recycled water. Providing a booster pump will allow for more consistent water pressure and will result in improved conditions and appearance of the turf.

Service Level

The booster pump will provide more pressure for irrigation purposes.

Issues

none

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	175,000	0	0	0	0	0	0	0	0	0	175,000	175,000
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	175,000	0	0	0	0	0	0	0	0	0	175,000	
Total	0	0	175,000	0	0	0	0	0	0	0	0	0	175,000	175,000
Operating Costs	0	0	0	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	9,000	9,000

Project Information Sheet

Project: 825450 City-Wide Water Line Replacement

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	2021-22	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1E.3	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

The integrity of the City's water supply system is critical to protect public health, enhance sanitation, and provide fire suppression. The success of these goals is dependent on the maintenance and eventual replacement of aged and worn infrastructure.

Currently, many portions of the water system have exceeded the estimated life expectancy provided by the Federal Environmental Protection Agency for mains and distribution lines of 35 to 40 years. Much of Sunnyvale's system is ductile iron pipe, which was once considered a very acceptable water system standard. However, the pipe deteriorates over time because of chemical reaction with certain soils.

Failure of these lines can be caused by a sudden break in the line resulting from structural failure of the eroded pipe material. Such a break can result in the failure of the pipe to deliver water, subsequently endangering a neighborhood or degrading the pressure and supply of the entire system, depending on the pipe size and location.

This project replace 20 miles out of a total of 280 miles of cast-iron water lines with C900 Class 200 lines, at a rate of 0.3 m/yr ramping up to 2 m/yr by 2011. Replacement will also upgrade pipes and fittings for seismic stability.

This project will also minimize the need for costly emergency response activities from the Field Services division that are caused by pipe breaks. Ongoing scheduled water line replacement is not only more cost-efficient than corrective or emergency repairs, but also less disruptive to residents. Water main infrastructure is 50+ years old and beyond its estimated life expectancy.

Service Level

The project will preserve City's investment in its infrastructure and increase water system life span.

Issues

none

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	250,000	357,000	468,180	583,664	595,338	607,244	619,389	631,777	644,413	657,301	5,414,306	5,414,306
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	250,000	357,000	468,180	583,664	595,338	607,244	619,389	631,777	644,413	657,301	5,414,306	
Total	0	0	250,000	357,000	468,180	583,664	595,338	607,244	619,389	631,777	644,413	657,301	5,414,306	5,414,306
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825460 Interior Coating of Water Tanks

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	2013-14	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1E.3	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

This project will remove the interior coal tar coating of five small water tanks and three large water tanks and will re-coat them to American Water Works Association standards. Coal tar coatings are no longer allowed by the Department of Health Services.

The small water tanks' existing coat is cracking and allowing growth of bacteria, and they are scheduled for re-coating during FY 05/06 (2 tanks at Central and 3 tanks at Hamilton). The other, large tanks are in better condition and do not represent an imminent health problem and are scheduled for recoating at a later time (1 tank at Mary/Carson in FY 11/12 and the other one in FY 12/13; 1 tank at Wolfe/Evelyn in FY 13/14).

Refurbishing the tanks is much more cost-efficient than replacing them, since the cost of replacing one tank is in the millions of dollars. Also, replacing one or more of the tanks would burden the water distribution system for a longer period of time, since the storage of water would not be available for drinking or fire protection. Proper coating should keep the tanks in good condition for up to 40 years.

Service Level

No service level impact.

Issues

None.

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	0	581,400	0	0	0	0	495,511	505,422	515,530	0	2,097,863	2,097,863
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	0	581,400	0	0	0	0	495,511	505,422	515,530	0	2,097,863	
Total	0	0	0	581,400	0	0	0	0	495,511	505,422	515,530	0	2,097,863	2,097,863
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825470 Well Study

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	2005-06	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1E.3	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

Two of the City's existing wells are currently used for standby purposes only since their production levels have tapered off significantly. Additionally, due to their low level, there are increased issues with water quality.

This project will provide for a study of the feasibility of drilling two new wells to replace the old wells and improve the City's water supply.

Service Level

No service level effect.

Issues

This project may qualify for Prop 50 funding.

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	0	0	0	0	0	0	0	0	0	47,804	47,804	47,804
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	0	0	0	0	0	0	0	0	0	47,804	47,804	
Total	0	0	0	0	0	0	0	0	0	0	0	47,804	47,804	47,804
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825480 Inspection and Renovation of Well Systems

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	Ongoing	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1E.3	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

This project replace the electrical panels in the motor control centers of Westmoor and Serra wells. Renovation work on additional wells will be done on an as-needed basis. The design of the project will be done during FY 05/06, and construction will take place in FY 06/07.

Service Level

The project will ensure that wells are maintained and that pumps are reliable, especially at times when they are most needed or in emergencies when Hetch-Hetchy or Santa Clara Valley Water District supplies may be interrupted.

Issues

none

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	40,000	163,200	0	0	0	0	0	0	0	0	203,200	203,200
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	40,000	163,200	0	0	0	0	0	0	0	0	203,200	
Total	0	0	40,000	163,200	0	0	0	0	0	0	0	0	203,200	203,200
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825490 Exterior Painting of Water Tanks

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	2006-07	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	Community Development

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1E.3	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

This project will repaint the exterior of two 5M gallon water tanks at Wolfe/Evelyn and Mary/Carson water plants (one each) during FY 06/07 and five 500K gallon water tanks at Hamilton and Central plants (3 and 2 respectively) during FY 10/11. The new paint will comply with American Water Works Association specifications, so as to meet current standards and protect this infrastructure investment and its life expectancy. Repainting is generally done in a 10-year cycle.

Service Level

No effect.

Issues

none

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	25,000	0	0	265,302	21,649	0	0	0	234,332	0	546,283	546,283
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	25,000	0	0	265,302	21,649	0	0	0	234,332	0	546,283	
Total	0	0	25,000	0	0	265,302	21,649	0	0	0	234,332	0	546,283	546,283
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Project Information Sheet

Project: 825500 Wright Ave Water Plant Mechanical Reconstruction

Category:	Infrastructure	Type:	Water	Department:	Public Works
Origination Year:	2005-06	Phase:	Planning	Project Manager:	Hira Raina
Planned Completion Year:	2005-06	% Complete:	n/a	Project Coordinator:	Jim Craig
Origin:	Staff			Interdependencies:	none

Element:	3 Environmental Management	Goal:	3.1A.3, 3.1E.3	Fund:	455 Utilities
Sub-Element:	3.1 Water Resources	Neighborhood:	City Wide	Sub-Fund:	100 Water Supply and Distribution

Project Description and Statement of Need

Needing replacement at the Wright Avenue Water Plant are 5 regulating valves, 3 electric motors (with a booster pump and a motor control center for each motor), and a lighting electrical sub-panel. One magnetic flow meter and one limitorque valve will also be installed. These items will provide better control of the water system. The propane generator that will replace the Waukesha motor will provide electricity during power failure to the whole station not to just one pump as the existing system does. This project is similar to the Mary/Carson Water Plant Mechanical Reconstructions project.

The most urgent item of the project is the installation of limitorque and magnetic meter to allow Supervisory Control and Data Acquisition (SCADA) control. The rest of the project will be done at a later date.

Service Level

The project will provide needed improvement to the City's water supply system.

Issues

This project may qualify for Prop 50 funding. Staff will explore this possibility.

Project Financial Summary

Financial Data	Prior Actual	Budget 2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	10 Year Budget	Grand Total
Project Costs	0	0	50,000	0	0	0	957,952	0	0	0	0	0	1,007,952	1,007,952
Revenues														
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfers-In														
Fund Reserves		0	50,000	0	0	0	957,952	0	0	0	0	0	1,007,952	
Total	0	0	50,000	0	0	0	957,952	0	0	0	0	0	1,007,952	1,007,952
Operating Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0